

# JOHN CAGE

## Scores and Prints

**Whitney Museum of American Art**  
**February 25-May 2, 1982**

### "We have eyes as well as ears..."

John Cage has been using his eyes as well as his ears for forty-five years of work, and it is his audience - alternately delighted, outraged and bewildered - which now finds itself able to see and hear more clearly. Always interested in the visual arts, Cage wavered between devotion to music and to painting, chose the former, but kept a weather eye on the latter. The rigorous purity of Mondrian's abstraction attracted his admiration in the 1930s, and in 1948 we find him quoting the fresh and pithy statements of Paul Klee.<sup>1</sup> The erratic, floating shapes of Calder's mobiles and the crystalline structure of Richard Lippold's gold and silver wire sculptures have found in him a rapt observer. Among the litany of names which appear and reappear in his writings and interviews, Mark Tobey, Morris Graves, Robert Rauschenberg, Jasper Johns recur, and he has written thoughtfully about each of these friends and colleagues. Tobey's White Writings, Graves' magic circles, Rauschenberg's myriad silkscreened images, Johns' serried or superimposed numbers, could constitute notations for possible worlds of sound as Cage's extraordinary varieties of notation pull his music into the visual field.

Scores have exerted a fascination over non-musical viewers for centuries. We are grateful to Cage and the collection of scores by modern composers he assembled for the Foundation for Contemporary Performance Arts (currently housed at Northwestern University and published in part in his Notations of 1969) for revealing the wild profusion of graphic invention in experimental music. The increasing interest on the part of present-day observers in notations of all sorts (dance as well as music) may have to do with our passion for the working drawing. Thomas Eakins' analyses of the angles at which ripples of water catch the light now attract as many admirers as do his finished paintings of scullers on the Schuylkill River. Marcel Duchamp's scribbled notes and his fastidious plans and elevations for



the Large Glass share its status as major work. The Glass itself operates as a giant blueprint or mechanical model, activated by its changing environment and the viewers who could be said to be "performing" it as they look. Interested in making a work which was not a work of "art," Duchamp resorted to any method at hand, including musical composition.<sup>2</sup> Cage, in his turn, borrows images and methods from the visual arts and employs any material at hand to write much of his music.

As his compositions grew increasingly complex and (after 1950) were generally based on chance operations, Cage's notation changed as a matter of course: "Everything came from a musical demand, or rather from a notational necessity."<sup>3</sup> From the earliest pieces for prepared piano, his scores have often included handwritten pages of intricate instructions, which in later works such as Water Music fuse with the score to become a kind of visual poetry. Another cluster of scores derives from astronomical maps, still another from chance determinations as to whether flaws in the paper are to be read as notes or silences. In one group of pieces, many of them for magnetic tape, Cage employed transparent sheets of plastic printed with lines, dots, or small symbols. By superimposing these materials, or in some cases by cutting out each symbol in a little square and letting them fall at random on a sheet of paper, each would-be performer arrives at his own score. Cage introduced color into his notations in Aria of 1958, and it runs delicately riot in several works of the 1970s.

But the visual abundance of scores is customarily reserved for performers, and Cage has always sought to give his listeners something to look at. During his long and fruitful collaboration with Merce Cunningham, audiences have needed to be "omniattentive":<sup>4</sup> watching the dancers, listening to sounds and silences, and enjoying the costumes, sets and lighting designed by a

distinguished succession of artists. After 1958, Cage himself moved with increasing alacrity toward his own version of "theater," which he saw as providing greater richness and flexibility than music alone, coming closer to his goal of resembling "Nature in her manner of operation."<sup>5</sup> Resisting recordings of his music as frozen history, Cage stressed the spatial properties unique to live performance. He has given increasing attention to the visual components of his compositions, using projected slides and films, and encouraging his audiences to make use of all their faculties.

Neglecting no faculty of his own, Cage made his first decisive venture into printmaking in 1969, producing two lithographs and eight plexigrams in celebration of his friend Duchamp, who had died in October of the previous year. Since that time, and with growing intensity since 1978, he has devoted himself to making prints as he continues to write music and a range of poetry and prose. In fact the three activities are sometimes inseparable from one another in his work, which seems to please him. One field for the intersection of creative energies has been provided by Cage's admiration for Henry David Thoreau, neither artist nor musician, but a passionate observer of nature. Thoreau's thinking and writing often surface in Cage's music (the Song Books of 1970, for example in which "we connect Satie with Thoreau") and in his lectures. Cage discovered Thoreau's Journal through a poet friend, Wendell Berry, in 1967, and was delighted by the tiny drawings they included: "When I first saw them [as slides, no longer illustrating the text], I realized I was starved for them."<sup>6</sup> These minute records of trees and leaves, hills and waterfalls, feathers and rabbit tracks, interrupt the flowing lines of brown ink in Thoreau's handwritten journals as a stone or twig diverts a stream.<sup>7</sup> Joyfully adopting printed versions of the drawings as a readymade shorthand for the natural world, Cage found that they could be played as music - Score (40 Drawings by Thoreau) and 23 Parts - projected on a screen as part of a performance - Empty Words - or trans-

formed through color and enlargement into an abundant vocabulary of images for an ongoing sequence of print editions. Determinedly unconcerned with self-expression, Cage finds it interesting to see what will happen as he combines straight lines and curves (the latter always obtained by dropping pieces of string on the plate, in memory of Duchamp) with the Thoreau drawings through chance operations, just as he accepts and enjoys unforeseeable variations in the performance of indeterminate music. Yet his most non-intentional works are undeniably his own: "Your chance is not the same as my chance," as Duchamp remarked in another context.<sup>8</sup>

The question of skill arises. Whether using star charts or observing imperfections in a sheet of paper to devise a piece of music, Cage performs often painstaking and extended labor with patience and discipline, a quality he prizes. New freedoms do not imply less work. His recent prints are similarly feats of careful observation and precise execution: although chance operations may dictate that an entire image falls outside of the printed sheet (Changes and Disappearances) its absence is as specific as its presence would have been. Above all, Cage pays attention. The first to sight a mushroom, he also knows its scientific name. Never having attempted etching or engraving prior to his first visit to Crown Point Press, he deliberately explored his lack of knowledge in Seven Day Diary (Not Knowing) as he gained in skill.

Cage has always been interested in the interpenetration of fields: music, technology, poetry, mycology, theater, dance, and the visual arts come alive in their encounters in his work (itself often taking the form of collaboration with others). He seeks to make us more aware of life itself, in its multiplicity of detail and infinite possibilities, by letting things be themselves and operate freely and simultaneously on our astonished sensibilities.

Anne d'Harnoncourt  
Curator of 20th-Century Art  
Philadelphia Museum of Art

## Notes

The title is taken from Cage's 1955 article, "Experimental Music," published in Silence (Middletown, Conn.: Wesleyan University Press, 1961), p. 12.

1. In "Defense of Satie," a lecture delivered at Black Mountain College in 1948, printed for the first time in Richard Kostelanetz, John Cage (New York: Praeger Publishers, 1974), p. 82.

2. Duchamp note published in A l'infinif (New York: Cordier & Ekstrom, Inc., 1966). Duchamp's two known scores are Musical Erratum of 1913 (Collection of Mme. Duchamp) and La Mariée mise à nu par ces célibataires, même of 1913 (Foundation for Contemporary Performance Arts; Gift of John Cage).

3. Quoted in For the Birds: John Cage in Conversation with Daniel Charles (Boston: Marion Boyars, 1981), p. 159.

4. A word used by Cage in a letter to Michael Zwerin, 1966, reprinted in Kostelanetz, John Cage, p. 167.

5. From a statement by Ananda K. Coomaraswamy, often referred to by Cage; see "Happy New Ears," in Cage's A Year From Monday (Middletown, Conn.: Wesleyan University Press, 1967), p. 31.

6. Quoted by Jane Bell in "John Cage: 'You can have art without even doing it. All you have to do is change your mind,'" Art News, 78, no. 3 (March 1979), p. 64. The bracketed phrase in the text is Cage's clarification to the author.

7. Thoreau's handwritten journals, which Cage has not yet seen, are in the collection of the Pierpont Morgan Library, New York. They were published in printed form (with drawings copied by hand and then introduced into the text) in 1962: The Journal of Henry D. Thoreau, eds. Bradford Torrey and Francis H. Allen, 2 vols. (New York: Dover Publications, Inc.).

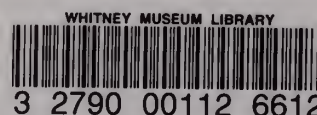
8. Quoted by Calvin Tomkins, The Bride and the Bachelors (New York: The Viking Press, 1965), p. 33.

## Acknowledgments

"John Cage: Scores and Prints" was co-organized by Anne d'Harnoncourt, Curator of 20th-Century Art, Philadelphia Museum of Art and Patterson Sims, Associate Curator, Permanent Collection, Whitney Museum of American Art. Charlotta Kotik, Curator, the Albright-Knox Art Gallery, Buffalo, New York, significantly contributed to the development of this project. Petr Kotik helped initiate the project and, as director of the S.E.M. Ensemble, will present at the Whitney Museum three evenings of John Cage music on March 31, April 1, and April 2, 1982.

This exhibition could not have been realized without the assistance of Margarete Roeder. Don Gillespie and Frank Billack of C.F. Peters Corporation, New York, sole selling agents for Henmar Press Inc., exclusive publisher of John Cage's scores, and Don Roberts, head of the Northwestern University Music Library, Evanston, Illinois, were invaluable in the selection of scores. Kathan Brown, with her associates at Crown Point Press of Oakland, California, provided both impetus for and insight into Cage's prints editions since 1978.

"John Cage: Scores and Prints" will also be shown at the Albright-Knox Art Gallery and the Philadelphia Museum of Art.



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945 Madison Avenue  
New York, New York 10021

Design: Linda Stillman



# Works in the Exhibition

Dimensions are in inches; height precedes width.

## Scores

- Quartet, 1935  
For percussion quartet  
Ink and pencil on paper, 6 pages,  
5 pages, each 8 1/2 x 11, 1 page,  
4 1/4 x 11  
Margarete Roeder Fine Arts, New York
- Living Room Music: A Story, 1940  
For percussion and speech quartet;  
the instruments are those to be  
found in a living room - furniture,  
books, paper, windows, walls, doors  
Photostat copies, made by Ozalid process,  
on paper, 4 pages, each  
8 1/2 x 11  
C.F. Peters Corporation, New York
- The Perilous Night: Table of Preparations, 1944  
For prepared piano  
Photostat copy, made by IBM process,  
on paper, 11 x 8 1/2  
C.F. Peters Corporation, New York
- Three Dances: Table of the Preparation, 1945  
For two prepared pianos  
Photostat copy, made by IBM process,  
on paper, 2 pages, each 11 x 8 1/4  
C.F. Peters Corporation, New York
- Music for Marcel Duchamp: Table of Preparations, 1947  
For prepared piano  
Ink on paper, 11 x 8 1/2  
Margarete Roeder Fine Arts, New York
- Study for Seven Haiku, 1951  
For piano solo  
Ink on paper, 7 x 27 1/2  
Collection of Jasper Johns
- Water Music, 1952  
For a pianist, using also radio,  
whistles, water containers, deck  
of cards  
Photostat copies, made by Ozalid  
process, on paper, 10 pages, each  
11 3/8 x 17 7/8  
C.F. Peters Corporation, New York
- Study for 26'l.1499" for a String Player, 1955  
Ink and pencil on paper, 11 x 8 1/2  
Collection of Jasper Johns
- 26'l.1499" for a String Player, 1955  
Ink and pencil on tracing paper, 6  
pages, each 11 x 14  
Margarete Roeder Fine Arts, New York
- Concert for Piano and Orchestra, 1957-58  
To be performed in whole or part, any  
duration, any number of specified or-  
chestra performers, as a solo, chamber  
ensemble, symphony, concert for piano  
and orchestra, aria, etc. The Concert  
for Piano and Orchestra is without a  
master score, but each part is written  
in detail in a notation where space is  
relative to time determined by the per-  
former and later altered by a conduc-  
tor. Both specific directives and spe-  
cific freedoms are given to each play-  
er, including the conductor. Notes are  
of three sizes, referring ambiguously  
to duration or amplitude. As many var-  
ious uses of the instruments as could  
be discovered were subjected to the  
composing means which involved chance  
operations and the observation of im-  
perfections in the paper upon which the  
music was written. The pianist's part  
is a "book" containing 84 different  
kinds of composition, some varieties of  
the same species, others, altogether  
different. The pianist is free to play  
any elements of his choice, wholly or  
in part and in any sequence.  
Ink and pencil on paper, 6 pages, each  
10 3/4 x 16 3/4  
5 pages The John Cage Notations Col-  
lection, Northwestern University  
Music Library, Evanston, Illinois,

1 page Collection of Jasper Johns

- Fontana Mix, 1958  
For magnetic tape. To be performed in  
whole or part, any duration, any number  
of the above performers, as a solo,  
chamber ensemble, symphony, concert for  
piano and orchestra, aria, etc.  
Photostat copy, made by Ozalid process,  
on clear plastic sheets and paper,  
selected pages, each 11 1/2 x 9  
C.F. Peters Corporation, New York
- Aria, 1958  
For solo voice. To be used alone or  
with Fontana Mix or any parts of Con-  
cert for Piano and Orchestra. The  
notation represents time horizontally,  
pitch vertically, roughly suggested,  
rather than accurately described. The  
relation of time and space is free.  
The vocal lines are drawn in black,  
with or without parallel dotted lines,  
or in one or more of eight colors.  
These differences represent any ten  
singing styles established by the sing-  
er. Black squares are any unmusical  
uses of the voice or auxiliary devices.  
The text employs vowels and consonants  
and words from five languages: Arme-  
nian, Russian, Italian, French and  
English. All aspects of a performance  
(dynamics, etc.) which are not notated  
may be freely determined by the singer.  
Mechanical printing with hand-coloring  
on paper, selected pages, each 16  
7/8 x 10 3/4  
C.F. Peters Corporation, New York
- Sounds of Venice, 1959  
For solo television performance, in-  
volving a large number of properties  
and four single-track tapes  
Ink and pencil on paper, title page, 3-  
page score, and sketch, each 8 1/2 x  
11  
Margarete Roeder Fine Arts, New York
- Cartridge Music, 1960  
For amplified "small sounds"; also am-  
plified piano or cymbal; any number of  
players and loudspeakers; part to be  
prepared from score by performers. (A  
cartridge is an ordinary phonograph  
pick-up in which customarily a playing  
needle is inserted.) This is a composi-  
tion indeterminate of its perfor-  
mance, and the performance is of ac-  
tions which are often indeterminate of  
themselves. Material is supplied, much  
of it on transparent plastics, which  
enables a performer to determine a pro-  
gram of actions. These are insertion,  
use and removal of objects from the  
cartridges, manipulation of timbre and  
amplitude dials of the associated am-  
plifiers, production of auxiliary  
sounds (also electronic). Since with-  
out amplification, the sounds are too  
small to be heard, one performer's  
activities interpenetrate radically  
with those of other performers when  
they concern the use of amplifiers.  
Directions are given for the use of  
this material for making a cymbal or  
piano duet, a piano trio, etc.  
Mechanical printing on paper and photo-  
stat copy, made by Ozalid process,  
on clear plastic sheets, selected  
pages, each 8 7/8 x 12  
C.F. Peters Corporation, New York
- Atlas Eclipticalis, 1961-62  
Instrumental parts to be played in  
whole or part, any duration, in any  
ensemble, chamber or orchestral; with  
or without Winter Music; an electronic  
version is made possible by use of con-  
tact microphones with associated am-  
plifiers and loudspeakers operated by  
an assistant to the conductor. Each  
part is written in space equal to a  
time at least twice as slow as clock  
time. Arrows indicate 0", 15", 30"  
and 45". Space vertically equals fre-  
quency. Since equal space is given  
each chromatic tone, notes not having  
conventional accidentals are micro-  
tones. Specific directives and free-  
doms are given regarding duration of

tones. Loudness is relative to the  
size of the notes. Tone production is  
never extraordinary. Percussion parts  
are a graph of the distribution in  
space of the instruments, as various  
and numerous as possible, chosen by the  
performer. The composition means in-  
volved chance operations together with  
the placing of transparent templates on  
the pages of an astronomical atlas and  
inscribing the positions of stars.  
Ink on paper, 3 pages, each 12 1/2  
x 17 1/4  
Margarete Roeder Fine Arts, New York

- Variations IV, 1963  
For any number of players, any sounds  
or combinations of sounds produced by  
any means, with or without other acti-  
vities.  
Photostat copy, made by Ozalid process,  
on paper, 11 1/4 x 18 1/2  
C.F. Peters Corporation, New York
- Music for Carillon No. 5, 1967  
For a 4-octave instrument. The nota-  
tion (treble and bass staves, giving  
equal space for each of 47 bells, omit-  
ting low C# and Eb) is on plywood, the  
grain etc. to suggest what bells are  
sounded.  
Ink on wood, 5 double-sided panels with  
ink-numbered tape additions by Jerry  
Neff, each 11 1/2 x 6 5/8  
Collection of Jerry Neff
- Song Books: Volumes I and II, 1970  
Solos for voice. The solos may be used  
by one or more singers. Any number of  
solos in any order and any superimposi-  
tion may be used. Superimposition is  
sometimes possible, since some are not  
songs, but are directives for theatri-  
cal activity (which, on the other hand,  
may include voice production). A given  
solo may recur in a given performance.  
Specific directions when necessary pre-  
cede each solo. When such directions  
have already been given, they are not  
repeated, but reference is simply made  
to them. Each solo belongs to one of  
four categories: 1) song; 2) song using  
electronics\*; 3) theater; 4) theater us-  
ing electronics\*. Each is relevant or  
irrelevant to the subject: "We connect  
Satie with Thoreau." Given a total  
performance time-length, each singer  
may make a program that will fill it.  
Given two or more singers, each should  
make an independent program, not fitted  
or related in a predetermined way to  
anyone else's program. Any resultant  
silence in a program is not to be feared.  
Simply perform as you had intended to,  
before you knew what would happen.  
\*Wireless throat microphones permit the  
amplification and transformation of vo-  
cal sounds. Contact microphones ampli-  
fy non-vocal sounds, e.g. activities on  
a table or typewriter, etc.  
Photostat copy, made by IBM process, on  
paper, selected pages, each 8 1/2 x  
10 1/4  
C.F. Peters Corporation, New York
- WGBH--TV, 1971  
For composer and technicians.  
Photostat copy, made by Ozalid process,  
on paper, 3 pages, each 11 x 11  
C.F. Peters Corporation, New York
- Score (40 Drawings by Thoreau) and 23 Parts, 1974  
For any instruments and/or voices.  
Twelve Haiku followed by a recording  
of the dawn at Stony Point, New  
York, August 6, 1974.  
Photostat copy of conductor's page,  
made by Ozalid process, on paper,  
13 1/2 x 20  
C.F. Peters Corporation, New York
- Etudes Australes, 1974-75  
For piano solo, based upon tracings of  
star maps  
1 page, pencil on tracing paper, 7  
pages, colored pencil on paper, each  
14 x 11  
Margarete Roeder Fine Arts, New York



# John Cage at Seventy: Toward a Chronology

1912

Born September 5 in Los Angeles, the only son of the engineer and inventor John Milton Cage, and his wife Lucretia Harvey.

1920-28

Takes piano lessons from his aunt Phoebe and Fannie Charles Dillon; becomes fascinated with the music of Edvard Grieg.

1928

Graduates from Los Angeles High School; class valedictorian. Enters Pomona College, where he remains for two years; attracted to the writing of Gertrude Stein.

1930-31

Travels to Europe, spending six months in Paris studying architecture, and briefly piano with Lazare Levy. Moves on to Biskra, Majorca, Madrid, and Berlin, writing poetry and painting. Begins to compose music.

1931-34

Returning to the U.S.A., continues to write, paint, and compose; gives lectures on music and art to housewives. Studies composition with pianist Richard Bühlig in Los Angeles and composers Adolph Weiss and Henry Cowell in New York.

1934

Studies counterpoint and analysis with Arnold Schönberg privately, at the University of Southern California and at U.C.L.A. Marries Xenia Andreyevna Kashevaroff.

1935-36

Composes chromatic music; increasingly interested in percussion music and in rhythmic structure.

1937-39

Moves to Seattle as composer-accompanist for Bonnie Bird's modern dance classes at the Cornish School. Meets Merce Cunningham, then a student of Bonnie Bird, and the artists Mark Tobey and Morris Graves. Composes and performs percussion music with groups which he organizes. Collects instruments of all kinds including "junk" objects. Delivers lecture entitled "The Future of Music: Credo" in which he redefines music as "organization of sound." In the fall of 1938, to accompany a dance by Syvilla Fort, writes Bacchanale, first piece for "prepared piano" which he invents.

1939

Composes Imaginary Landscape No. 1 using muted piano, cymbal, and phonograph records of variable and constant speeds - his first piece to make use of a recording studio for production.

1941

At invitation of László Moholy-Nagy, teaches a class in experimental music at the Chicago Institute of Design. While there, commissioned by CBS to do score for a radio program with the poet Kenneth Patchen: The City Wears a Slouch Hat.

1942

Moves to New York City in the spring, and writes Credo in Us, his first work to accompany a dance by Merce Cunningham and the beginning of a lifelong collaboration. Writes The Wonderful Widow of Eighteen Springs for voice (his first use of a text from James Joyce's Finnegans Wake) to be accompanied by fingers or knuckles striking a closed grand piano. Meets Marcel Duchamp through Max Ernst and Peggy Guggenheim.

1943

Concert of his percussion music at the Museum of Modern Art in February begins to establish his reputation as a central figure of the avant-garde. Meets Virgil Thomson, who becomes a friend and supporter of his work.

1944

Cage becomes closely associated with Cunningham and his dancers with their first joint recital in 1944, and functions as the musical director of the company until 1966. From the mid-1940s to the present often writes music for and performs with Cunningham, and their invention of the independent but cooperative relationship of music and dance has a profound effect on others.

1945

Separated from Xenia, moves to the Lower East Side. Begins to study the philosophy and traditional music of India with Gita Sarabhai, and attends lectures on Zen Buddhism by Dr. Daisetz T. Suzuki at Columbia University (for two years).

1947

The Ballet Society in New York commissions his score for The Seasons, with choreography by Cunningham and sets by Isamu Noguchi. Writes music to accompany Duchamp sequence in Han Richter's film, Dreams that Money Can Buy.

1948

Completes Sonatas and Interludes for prepared piano, to

express the "nine permanent emotions" of Indian tradition, after reading the work of Ananda K. Coomaraswamy. Teaches during the summer at Black Mountain College in North Carolina, where he organizes an Erik Satie festival. Meets R. Buckminster Fuller, whose thought will become increasingly important to him.

1949

Receives Guggenheim Fellowship and an award from the American Academy and National Institute of Arts and Letters. Travels to Europe, where he meets Pierre Boulez, with whom he later carries on a lively correspondence.

1950

Meets the pianist David Tudor, with whom he collaborates on many performances and projects over the following years. Together with Tudor and the composers Morton Feldman, Christian Wolff, and (somewhat later) Earle Brown, works to free sounds from memory, taste, and any fixed relationship to each other. Over the next few years they make constant experiments and discoveries in the field of electronic music. Delivers "Lecture on Nothing" at the Artist's Club started by Robert Motherwell in New York. During this period, becomes a friend of many of the Abstract Expressionist painters, who constitute a sympathetic audience for his music and Cunningham's dance.

1951

Completes Sixteen Dances for Cunningham, for which he prepares large charts to plot the rhythmic structure of the music. Meets Robert Rauschenberg, and collaborates with him on Automobile Tire Print. Wolff introduces Cage to the I Ching (Chinese Book of Changes), which becomes an essential tool for composing much of his music and, later, his prints. Over a period of nine months, writes Music of Changes for piano, based entirely on chance operations. Writes Imaginary Landscape No. 4 for twelve radios.

1952

Writes Imaginary Landscape No. 5, his first piece for magnetic tape, Music for Carillon No. 1, composed using templates of folded paper, and his celebrated 4'33", a silent piece in three movements inspired in part by Rauschenberg's all-white paintings, one of which hangs in his loft. Teaches again at Black Mountain College, where he organizes an untitled "event" with Cunningham, Rauschenberg, Tudor, and the poets Charles Olson and Mary Caroline Richards. This 45-minute event, in which each participant simultaneously performs unrelated actions, is later seen as a prototype for Happenings in the mid-1960s. During summer also work on Williams Mix, a complex piece for tape with a "collage" of a large number of recorded sounds combined by chance operations.

1954

Moves with friends to a small cooperative community near Stony Point, New York, where he becomes fascinated with the study of mushrooms in particular and nature in general. Makes a European concert tour with David Tudor which has a lively effect upon experimental music abroad.

1955

Around this time, meets Jasper Johns. Writing Music for Piano, derived from imperfections in the paper he is using. Gives a controversial recital with Cunningham in October at the Clarkstown High School in New City, New York.

1956

Gives occasional classes (through 1960) at the New School for Social Research in New York, where his students include George Brecht, Al Hansen, Dick Higgins, Toshi Ichiyanagi, Allan Kaprow, and Jackson MacLow. Later developments in Happenings and the Fluxus movement hence partly attributed to his teaching.

1958

In May, a retrospective concert of 25 years of Cage's music is organized by Johns, Rauschenberg, and Emile de Antonio at Town Hall in New York. Concert for Piano and Orchestra, with a piano solo using 84 methods of composition, is performed for the first time, with Cunningham conducting as a "chronometer of variable speed." A group of Cage's scores is shown at the Stable Gallery. With David Tudor, travels to Europe, teaching a class in experimental music in Darmstadt, where he meets Nam June Paik. At Brussels World's Fair, delivers lecture on indeterminacy, consisting of 30 amusing stories read one each minute. At the invitation of Luciano Berio, spends four months in Milan, composing Fontana Mix for tape with the aid of superimposed sheets of transparent plastic marked in ink. Wins Italian TV quiz show as mushroom expert and performs Water Walk and Sounds of Venice, two short pieces as much theater as music.

1960-61

Fellow at Center for Advanced Studies at Wesleyan Uni-

versity, Middletown, Connecticut, where he works on Silence, first anthology of his lectures and writings, published by Wesleyan in 1961. Writes Cartridge Music for phonograph cartridges and contact microphones to pick up small sounds, and uses materials from the score to write other music and texts, including Where are We Going? And What are We Doing? Completes flexible text on Rauschenberg, published in May 1961. Commissioned by the Montreal Festival Society to write a major orchestral work, Atlas Eclipticalis, composed with astronomical charts by means of chance operations.

1962

Co-founder of New York Mycological Society. Travels to Japan on six-week concert tour with David Tudor.

1963

In September, directs first New York performance of Satie's Vexations, with 840 repetitions. Writes Variations III and IV, highly indeterminate works for any number of performers.

1964

Writes 26 Statements re Duchamp, and completes Jasper Johns: Stories and Ideas (for Johns' exhibition at the Jewish Museum). New York Philharmonic Orchestra, at the instigation of Leonard Bernstein, performs Atlas Eclipticalis, with mixed results. In April, invited by University of Hawaii music department to visit as part of an East/West Exchange. Represents West, while Toru Takemitsu represents East. Cage travels with Cunningham company on world tour which includes Japan and India.

1965

Begins writing intermittent prose work, Diary: How to Improve the World (You Will Only Make Matters Worse) to celebrate the ideas of Buckminster Fuller. Becomes president of the Cunningham Dance Foundation, and director of the Foundation for Contemporary Performance Arts.

1967

Composer in residence at University of Cincinnati. Finishes second anthology of writings, A Year from Monday. Introduced to Henry David Thoreau's Journal by the poet Wendell Berry. Organizes first Musicircus at University of Illinois, Urbana, in November: simultaneous performances of as much unrelated music as possible.

1968

Conceives Reunion, a game of chess on an amplified board in which moves activate sound systems created by several musicians. Performed in Toronto with Marcel and Teeny Duchamp, David Behrman, Lowell Cross, Gordon Mumma, and David Tudor. Elected to the American Academy and Institute of Arts and Letters.

1968-69

As associate at the Center for Advanced Study at the University of Illinois in Urbana, collaborates with Lejaren Hiller on vast work for harpsichord and tape, inspired in part by Mozart. For this project, programming the I Ching into a computer makes the thousands of required chance operations possible. HPSCHD is performed in the Assembly Hall at Urbana on May 16, 1969, with 7 harpsichords, 51 tapes, 7 film projectors, and 80 slide projectors for an audience as large as 9000. Many of the slides and films are on the subject of space travel.

1969

Artist in residence, University of California at Davis. Publishes collection of scores assembled for the Foundation for Contemporary Performance Arts as Notations (with Alison Knowles). Executes first major graphic work, Not Wanting to Say Anything About Marcel (with Calvin Sumsion). Begins work on Cheap Imitation, derived from Satie's Socrate, by chance operations, for piano and later for orchestra. Increasingly interested in working with language: letters, syllables, words, and phrases freed from syntax and meaning.

1970

Fellow for Advanced Studies at Wesleyan University. Makes increasing use of Thoreau's writing to derive both music and prose. Writes Song Books for solo voice referring (and not referring) to the theme "We connect Satie with Thoreau." During Paris Music Weeks in October, organizes Musicircus at Les Halles.

1971

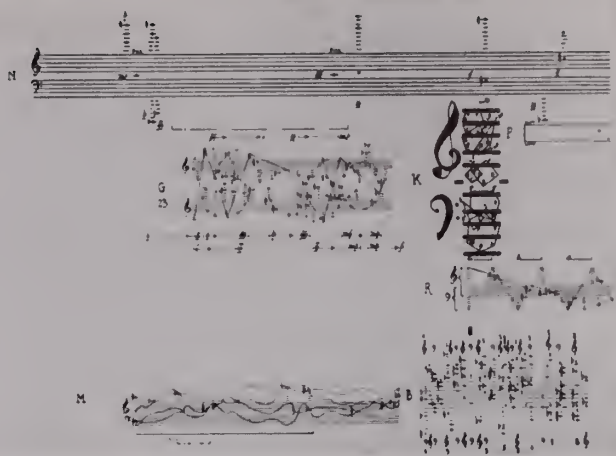
Writes 62 Mesostics re Merce Cunningham. Increasingly interested in lecture/performance for voice and tape. Begins study of the writings of Mao Zedung.

1972

Produces Mushroom Book (with Lois Long and Alexander H. Smith), for which he makes 10 lithographs. European concert tour with David Tudor, often performing Mesostics or Mureau (mix from Thoreau's writing) superimposed upon Tudor's electronic works. Around this time, moves back to Manhattan from Stony Point.

1974

Begins extended work for solo piano, Etudes Australes,



Concert for Piano and Orchestra, 1957-58

again using star charts. Employs Thoreau's drawings for musical composition in Score. Contributes Series re Morris Graves to catalogue of the artist's drawings. Richard Kostelanetz publishes the anthology, John Cage.

1975

Exploring ways to encourage improvisation while avoiding self-expression, writes Child of Tree for amplified plant materials. Commissioned by Canadian Broadcasting Corporation for a work related to the Bicentennial: Lecture on the Weather, combining chanted texts derived from Thoreau with film and recordings of breeze, rain, and thunder.

1976

Commissioned by Seiji Ozawa and the Boston Symphony Orchestra for a major Bicentennial work, writes Renga (using 361 Thoreau drawings) and Apartment House 1776, incorporating live or recorded songs, calls, and hollers. Intensive preoccupation with Finnegans Wake begins.

1977

Advised by Yoko Ono to consult Shizuko Yamamoto, adopts macrobiotic diet. Score for Renga exhibited at the Museum of Modern Art. Begins to write Freeman Etudes for violinist Paul Zukofsky in precisely determined notation. Continues improvisatory work such as Inlets for instruments which include water-filled conch shells.

1978

At the invitation of Kathan Brown, begins sessions of printmaking at Crown Point Press in Oakland, California, using chance operations and experimenting with various techniques. Publishes Writing Through Finnegans Wake. Elected a Fellow of the American Academy of Arts and Sciences.

1979

At IRCAM in Paris, assisted by engineer John Fulleman, produces Roaratorio, an Irish Circus on Finnegans Wake, using several thousand sounds mentioned in the Wake or recorded in places referred to by Joyce. Devises a means for "translating" any book into music.

1980

Third and Fourth Writings Through Finnegans Wake. Begins Fifth Writing. Completes James Joyce, Marcel Duchamp, Erik Satie: An Alphabet.

1981

In September, gives live performance of Empty Words, broadcast over National Public Radio. Presents Composition in Retrospect referring to his own past works, at the eighth Computer Music Conference in Denton, Texas, in November. In the same month, Thirty Pieces for Five Orchestras is given its performance in Pont-à-Mousson, near Metz, France. Begins Dance/4 Orchestras for the Cabrillo Music Festival in 1982.

1982

Completes two extended sequences of prints at Crown Point Press, Changes and Disappearances and On the Surface, and begins another series, Déreau. Roaratorio is performed in Toronto at the end of January. Themes and Variations, a non-syntactical text derived from 110 ideas which continue to seem important to him from his past work, and the names of 15 people who have influenced him, is published by Station Hill Press. The Mud Book, created with Lois Long in the late 1950s, is published in facsimile. In July, the festival New Music America, presented in Chicago, is dedicated to Cage. As yet unrealized projects include Atlas Borealis for chorus and orchestra, using the Ten Thunderclaps from Finnegans Wake.



• Branches, 1976  
For percussion solo, duet, trio, or orchestra (for any number of players) using amplified plant materials  
Color xerox, 8 1/2 x 11  
C.F. Peters Corporation, New York

• A Dip in the Lake: Ten Quicksteps, Sixty-two Waltzes, and Fifty-six Marches for Chicago and Vicinity, 1978  
A work for listener, performer and/or recorder scored for two places, three places and four places with the idea of two step, waltzes and marches. The concept is to go to the places and either listen to, perform at and/or make a recording of the sounds and therefore possibly connect with the life of the city.  
Felt-tip pen on map of Chicago, 52 x 42  
Margarete Roeder Fine Arts, New York

• Litany for the Whale, 1980  
Recitation and thirty-two responses for two voices without vibrato W=wou as in would H=hu as in hut A=ah L=ll as in will E=e as in under. A "word" is sung in one breath but pronouncing each letter separately and giving more or less equal time (J=72) to each letter except the last (or only) letter of a word which is to be held longer than the others. Let there be a short silence after each response. The first singer sings the recitation. The singer follows with the first response (the second singer that is). A short silence and the recitation. The first singer then sings the second response, waits and then sings the recitation, etcetera, quietly, without dynamic changes. Photostat copy, made by Ozalid process, on paper, 2 pages, each 9 5/8 x 8 1/2  
C.F. Peters Corporation, New York

## Prints

• Lithograph A, from Not Wanting to Say Anything About Marcel, 1969  
Lithograph, 27 5/8 x 40 1/4  
Whitney Museum of American Art; Gift of Mr. and Mrs. Sylvan Cole, Jr. 81.35.3

• Lithograph B, from Not Wanting to Say Anything About Marcel, 1969  
Lithograph, 27 1/2 x 40  
Collection of the artist

• Plexigram II, from Not Wanting to Say Anything About Marcel, 1969  
8 silkscreened plexiglass sheets, each 14 x 20 x 1/4 on a wood stand, 3/4 x 14 1/2 x 23  
Collection of the artist  
The 2 lithographs and 8 plexigrams which constitute Not Wanting to Say Anything About Marcel were made in collaboration with Calvin Sumsion. They were intended as a tribute to Marcel Duchamp, which would in no way refer to Duchamp specifically. Cage subjected the pages of a dictionary to the I Ching. These pages were first divided into 64 groups. From these groups, by chance, words, then letters, then fragments of letters were selected. These results were distributed using 261 typographical possibilities in 8 sets of 8 sheets of plexiglass, which Cage calls Plexigrams, and on the sheets of black paper which became Lithograph A and Lithograph B.

• Mushroom Book, 1972  
Lithographs, selected prints from the set of 10, each 22 1/2 x 15  
Collection of the artist  
Produced in conjunction with Lois Long and Alexander H. Smith

• 30 Drawings by Thoreau, from A Portfolio of Seven Prints Recording Collaborations with the Merce Cunningham Dance Company, 1974  
Silkscreen, 20 x 30  
Whitney Museum of American Art; Gift of Calvin Tomkins 80.34.1

• Score without Parts (40 Drawings by Thoreau): Twelve Haiku, 1978  
Hard-ground etching, soft-ground etching, photo-etching, drypoint, sugar aquatint, and engraving, 22 x 30  
Collection of the artist  
Additional visual dimensions were added to the conductor's page of Cage's score for Score (40 Drawings by Thoreau) and 23 Parts, 1974. Some of the images are based upon photographs of Thoreau's drawings, others were traced or drawn freehand. The etching process and the color of each image were selected by chance operations.

• Seven Day Diary (Not Knowing), 1978  
7 prints, each 12 x 17  
a. Hard-ground etching and drypoint  
b. Hard-ground etching, drypoint and soft-ground etching  
c. Hard-ground etching, drypoint, soft-ground etching, and sugar aquatint  
d. Hard-ground etching, drypoint, soft-ground etching, sugar aquatint, photo-etching, and found objects  
e. Hard-ground etching, drypoint, sugar aquatint, photo-etching, found objects, and color etching  
f. Hard-ground etching, drypoint, soft-ground etching, sugar aquatint, photo-etching, found objects, and color etching  
g. Hard-ground etching, drypoint, sugar aquatint, photo-etching, found objects, and color etching

Produced over seven days, this series records Cage's first encounters with various techniques of printmaking. A new technique was introduced each day. Cage made all the marks of these prints without looking at the plate on which he was working.

• Signals, 1978  
Drypoint, engraving, and photo-etching, 4 prints from an edition of 25 related images, each 13 x 20  
3 prints Collection of the artist, 1 print Collection of Jasper Johns  
Each impression of Signals is unique. Chance operations dictated the use of its three elements: circles, straight lines, and Thoreau drawings. After a single impression was pulled, each plate was cancelled. The cancelled plate and the working drawings which charted its configurations were sold along with each print.

• 17 Drawings by Thoreau, 1978  
Photo-etchings, 4 prints from an edition of 25 uniquely colored but identical images, each 25 x 36  
1 print Collection of the artist, 1 print Collection of Jasper Johns, 1 print Crown Point Press, Oakland, Ca., and 1 print Margarete Roeder Fine Arts, New York  
The images in 17 Drawings by Thoreau were drawn from 18 of the thumbnail sketches (one was repeated) in Thoreau's Journal. They were magnified to scales determined by the I Ching. The process stressed the outlines of the images. Cage worked with all the pigments available at Crown Point Press to produce the different hues of each print.

• Changes and Disappearances, 1979-82  
Drypoint, engraving, and photo-etching, edition of 35 related images, each 11 x 22  
2 prints Collection of the artist, 1 print Collection of Dove Bradshaw and William Anastasi, 2 prints Crown Point Press, Oakland, Ca.  
Cage selected the size of the paper sheets and then had 8 similarly sized copper printing plates cut into 66 smaller plates of varying sizes and shapes. The curved edges of these smaller plates were determined by the line made by a greased string that was dropped from various heights onto the plates; the straight edges were made by drawing a line between chance-determined quadrants. Each of the 66 plates was assigned a number. Curved engraved

lines, straight drypoint lines, and photographs of the Thoreau drawings were used to make the images. In composing each print, Cage allowed the selected plates to rotate 360 degrees around the intersection point of two quadrants of the paper. While some portion of every selected plate would appear in the photo-etching, often a large portion would be rotated off the paper. Due to the variables involved, the photographs were sometimes developed in such a way that nothing was visible. Accordingly, Cage added "Disappearances" to "Changes," his original title for the series. Additionally, he consulted the I Ching as to whether any given plate should be altered during the actual printing of an etching. If a change was called for, he added an engraving or a drypoint. Each time two plates overlapped, a separate run or pass through the press was required. There are two and sometimes three impressions of the same image.

• On the Surface, 1980-82  
Intaglio, 4 prints from an edition of 35 unique but related images, each 18 x 24  
Crown Point Press, Oakland, Ca.  
Cage started with 32 pieces of scrap metal which were then cut in 2 parts as printing plates. A grid of 64 segments on each side of the paper was made by chance operation to print these plates. On this grid each plate was rotated 360 degrees around the intersection point of 2 quadrants determined by the I Ching. A floating grid was located on the original grid and then rotated on the original grid's 2 quadrants. On this floating grid, all loci were determined by consulting the I Ching. The I Ching determined which plates would be used in a print, and in what color each of those plates would be printed. To position the plates, Cage found the Golden Section of the composing grid, and then divided the area above that line into 35 equal horizontal sections. The top line of each of these sections became an imaginary "horizon" line (or "surface") that drops down a step with each successive print. The space in which the plates fall in the 35th and final print is the Golden Section. If a plate happened to fall on the horizon, it was cut on a straight line from one of the plate edges (where it hits the line) to a chance-determined point below the "surface" on the perimeter of the plate. If the plate fell on the "surface" but the part below the line was too miniscule to be cut, it remained above, uncut. So, with each successive print - even with each run of each print (some prints have as many as 9 runs) - the number of plates increased and the size of the plates decreased. If a plate was so small it was impossible to ink, it was run through the press un-inked. All plates cut from an original were printed together. The floating grid was not used in such instances to ensure that all the segmented plates would appear. Two impressions were pulled of each print.

In conjunction with the exhibition the following work is shown in the Lower Gallery of the Museum:

Robert Mahon  
John Cage: A Portrait Series, 1981  
216 black-and-white photographs, each 10 x 8 with text, and 9 charts, copies of the original working notes that explain the I Ching procedures used in producing the portrait series.  
Collection of Robert Mahon  
Divided into 6 series of 36 photographs, each series includes the number of exposures on a single roll of 35mm film. Series One, Two, and Three were made from one set of negatives, Series Four, Five and Six from a second set. Both the negatives and the prints were made by subjecting various steps in the photographic process to chance operations.